AMENDMENTS TO THE CLAIMS

The current listing of the claims replaces all previous amendments and listings of the claims.

1. (Currently Amended) A method for decontamination of oily cuttings, coming from drilling oil wells, and recovery of an oily component, comprising

mixing said cuttings with a solvent compressible to a liquid state at a pressure ranging from 45 to 80 bar and causing separation of an oily fraction at a pressure ranging from 30 to [[60]] 65 bar, and at a temperature corresponding to a saturation value, to dissolve the oily fraction of the cuttings;

removing a liquid phase including the solvent and the oily fraction from the cuttings;

expansion and heating of the liquid phase to recover the oily fraction discharged, and to recover the solvent in a vapor phase;

cooling and condensation of the solvent in the vapor phase for use in a subsequent mixing with other cuttings.

2. (Canceled)

3. (Previously Presented) The method according to claim 1, wherein the mixing of the cuttings and separation of the oily fraction take place at a temperature close to the saturation value of the liquid phase.

4. (Previously Presented) The method according to claim 1, wherein cooling and condensation of the solvent in the vapor phase occurs after under-cooling of the liquid phase at a temperature ranging from 0 to 5° C.

5. (Previously Presented) The method according to claim 1, wherein the solvent is fed to an extraction vessel in a ratio from 2 to 20 times by weight with respect to the cuttings during the mixing of the cuttings with the solvent.

6. (Previously Presented) The method according to claim 1, further comprising:

mixing the cuttings with an inert material, the cuttings being 10 to 40% by weight of the inert material, prior to mixing the cuttings with the solvent.

7. (Previously Presented) The method according to claim 6, wherein the inert material includes other cuttings.

8. (Previously Presented) The method according to claim 1, wherein the solvent includes at least one of carbon dioxide, alkane or alkene with a number of carbon atoms less than or equal to 3, and light hydrofluoro carbide.

9. (Previously Presented) The method according to claim 1, wherein the liquid phase is moved using a volumetric compressor between a separation section and an accumulation tank.

10. (Previously Presented) The method according to claim 1, wherein the liquid phase is moved using a volumetric pump between an accumulation tank and an extractor vessel.

11. (Previously Presented) The method according to claim 1, wherein the oily fraction is separated by the use of one or more separators.

12. (Previously Presented) The method according to claim 11, wherein at least one of the separators is configured to provide a cyclone effect.

13. (Previously Presented) The method according to claim 1, wherein the oily phase is separated by a first separator configured to remove the solvent by an inertial impact, and a second separator configured to remove the solvent by a cyclone effect.

14. (Previously Presented) The method according to claim 11, wherein a filter configured to separate liquid from the solvent is situated down-stream of at least one of the separators.

15. (Previously Presented) The method according to claim 9, wherein a phase passage of the solvent take place by an energy exchange between a heat of vaporization and a heat of condensation.

16. (Previously Presented) The method according to claim 1, further comprising:

mixing the cuttings with an inert material prior to mixing the cuttings with the solvent.